APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,288	09/12/2003	Michael A. Duncan	CHA920030019US1	7423

23550 7590 02/23/2006	EXAMINER
HOFFMAN WARNICK & D'ALESSANDRO, LLC	CHEN, ALAN S

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ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
10/661,288</td><td>Applicant(s)
DUNCAN ET AL.</td></tr>
<tr><td>Examiner
Alan S. Chen</td><td>Art Unit
2182</td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>12 September 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-35</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-35</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>12 September 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>09/12/2003</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

2.   Claims 12-14,15 and 28-30 are rejected under 35 U.S.C. 112, second paragraph,
as being indefinite for failing to particularly point out and distinctly claim the subject
matter which applicant regards as the invention.

3.   Per claim 15 recites the limitation "said device" in line 1. There is insufficient
antecedent basis for this limitation in the claim. Examiner assumes applicant meant to
state "said peripheral interface device" and not the external device.

4.   Per claim 12-14 and 28-30 the terms "urgent data" is a relative term which
renders the claim indefinite. The term "urgent" is not defined by the claim, the
specification does not provide a standard for ascertaining the requisite degree, and one
of ordinary skill in the art would not be reasonably apprised of the scope of the
invention. Specifically, the specification gives exams of what *could* be urgent, i.e., such
as error conditions, MICR raw sample data, or MICR character data (pg. 12 lines 6-7).
However, this is very open-ended and can include any other type of data
message/request/command. To advance prosecution, Examiner will assume urgent
data to be data equivalent to an interrupt.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that
form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1-35 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat.

No. 5,809,261 to Lambrecht.

7.   Per Claims 1, 17 and 33, Lambrecht discloses a computer system (Fig. 1)

comprising a processing unit (Fig. 1, element 102); a memory (Fig. 1, element 110); an

I/O bus coupled to the processing unit and memory (Fig. 1, element 120 and 130); and

a peripheral interface device/interface host motherboard card (Fig. 1, elements 142, 144

and 146 are all construed to be the singular peripheral interface device since all of them

each indeed interfaces to external peripheral devices. To be more exacting, the

motherboard backplane under which the multimedia devices sit, is the "peripheral

interface device", the backplane accommodating multiple multimedia device

ports/connectors, elements 142, 144 and 146; the backplane is construed to be one

large interface card, adaptable to accommodate multiple daughter cards) which

provides a communication interface for a plurality of external devices (elements 142-146

are external device interfaces; Fig. 4, element 132 show that the interface is slots;

Column 13, lines 58+ disclose examples of different external peripheral multimedia

devices), wherein the peripheral device includes: a plurality of transfer control logic

modules TCL (Figs. 2, 11, 8) show details of each module, elements 142-146 that

allows an external device to attach to the host), wherein each TCL module includes an

interface for a dedicated external device (slots shown in Fig. 4 are the interfaces,

interfacing the digital logic shown in Fig. 8), wherein the multiple TCL modules can

communicate in parallel with their external devices (Fig. 5, PCI and multimedia bus are inherently parallel standards, Lambrecht is directed towards real time multimedia, see abstract, requiring high throughput); and a dual port memory DPM device (Fig. 15, element 160; Column 20, lines 60+, "...multimedia memory 160 is preferably dual ported memory...") that is in communication with the I/O bus (Fig. 15 clearly shows communication with both the multimedia and PCI buses), wherein the DPM device can selectively communicate data with each of the plurality of TCL modules (dual port memory 160 is shared by all multimedia devices, elements 142-146). Note Lambrecht shows dedicated multimedia busses in Fig. 10, for specific devices, e.g., dedicated bus for a video device and a dedicated bus for audio device.

8.   Per claims 2,18 and 35, Lambrecht discloses claims 1,17 and 33, further disclosing TCL modules (142-146) communicate with DPM in a round robin fashion (Column 22, lines 10-20 disclose each multimedia device, 142-146 communicating with buffer via arbitration, e.g., each device is pitted against another device, and based on whoever wins arbitration, has access to the buffer).

9.   Per claims 3-9,13,14, 19-25,29,30 and 34 Lambrecht discloses claims 1,17 and 33 further disclosing having specific control channel interface for each multimedia interface/device (Fig. 8, element 526 interfaces control bus, Fig. 7, element 502) where read/writes to the host multimedia/PCI bus are handled via this control bus and the transactions over the bus are operated via various types of commands such as interrupts, status commands, etc (Column 13, lines 30+ disclose the control interface and control bus 526 interrupts, synchronizes, relays status commands, etc.).

10.   Per claims 15,16 and 31, 32, Lambrecht disclose claims 1 and 17, wherein the

peripheral interface device is a PCI adapter card (as stated, the peripheral interface

device is the backplane having slots that adapt to peripheral PCI cards or multimedia

cards; the peripheral interface device is thus construed, itself, to be a PCI adapter card,

able to accommodate multiple daughter PCI cards).

11.   Per claims 10,12 and 26,28, Lambrecht disclose claims 1 and 17, wherein dual

port multimedia memory (Fig. 15, element 160) has memory regions that stores writes

and reads to the external device (Column 22, lines 15-20, "...multimedia devices 142C-

146C can gain control of the real-time bus 130 and access the multimedia memory 160

to retrieve desired code and data..."; Column 21, lines 55-60, "...multimedia devices

142C-146C also communicate data between each other and the multimedia memory

160 using the real-time bus or multimedia bus 130...". Note the claim language does

not dictate that each device has its own separate region in the multimedia memory, e.g.,

on can view the multimedia memory 160 as a memory pool that is overwritten each time

a external device writes to it).

12.   Per claims 11 and 27, Lambrecht disclose claims 1 and 11, wherein each TCL

module includes a control register for controlling data transfers between the computer

system and the TCL module (Fig. 14, elements 712-716 show registers for controlling

data between system and each TCL modules 142-146).

Conclusion

13.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Patents and patent related publications are cited in the Notice of

References Cited (Form PTO-892) attached to this action to further show the state of

the art with respect to a peripheral hub that controls multiple external peripheral devices

in real-time.

14.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Alan S. Chen whose telephone number is 571-272-

4143. The examiner can normally be reached on M-F 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim N. Huynh can be reached on 571-272-4147. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

ASC
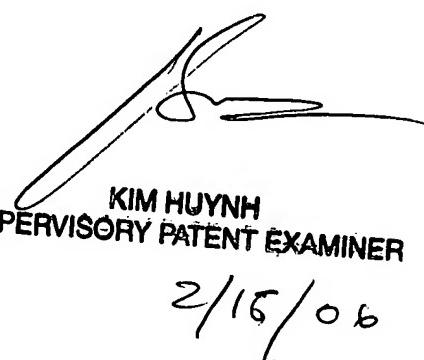
KIM HUYNH
SUPERVISORY PATENT EXAMINER

2/15/06